The Brockenbrough Transseptal Catheterization

An Unusual Complication

By JOHN O. PARKER, M.D., ROXROY O. WEST, M.D., and JOHN E. FAY, M.B.

The transseptal method of left heart catheterization described by Ross is widely used and is generally considered to be the method of choice for the hemodynamic assessment of mitral and aortic valve disease. A number of complications, unique to this method, have been reported, including perforation of the catheter by the transseptal needle, puncture of the aorta or pulmonary artery, entry into the pericardial sac, creation of an atrial septal defect, and left atrial thrombus formation. The authors are presenting a complication of the Brockenbrough modification of the transseptal technic not previously reported.

Mrs. J.F. was admitted to the Kingston General Hospital in September 1963 for assessment of mitral valve disease. A combined cardiac catheterization was carried out by the Brockenbrough technic. The first attempt at puncture of the interatrial septum was unsuccessful, but with repositioning the catheter was easily passed into the left atrium. The left ventricle was then entered by the Sel-dinger technic from the right femoral artery, and simultaneous pressures showed a diastolic pressure gradient of only 3 mm Hg across the mitral valve. It was then noted that the tip was absent from the Brockenbrough needle (fig. 1) and by fluoroscopy it was visualized in the interatrial septum (fig. 2). There had been no untoward effects during the catheterization, but in view of this acci-
embolization or infection. Careful handling of the Brockenbrough needle is essential to prevent damage or angulation at the union between the shaft and tip. The stress placed on the junction at the time of septal puncture is increased by such angulation and may be followed by separation. This potential hazard would be eliminated if the needle was of unit construction.

Addendum

Since this article was submitted for publication Susmano and Carleton\(^8\) reported a similar complication where the tip of the needle became lodged in the liver.

References

The Brockenbrough Transseptal Catheterization: An Unusual Complication

JOHN O. PARKER, ROXROY O. WEST and JOHN E. FAY

Circulation. 1964;30:743-744
doi: 10.1161/01.CIR.30.5.743

Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 1964 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/30/5/743.citation

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/